# REQUEST FOR INFORMATION

## Acquisition of High Resolution Digital Orthoimagery and Digital Elevation Data for Alaska

This is a Request For information (RFI) only. It is issued solely for information and planning purposes. Although information gained from this Request for Information (RFI) may be used to secure funding and initiate mapping contracts, the government does not intend to award a contract on the basis of this RFI or to otherwise pay for the information. The government will not pay for any information or administrative cost incurred in response to this RFI.

I. Area of Interest:

The Alaska mapping community, represented by the Alaska Geographic Data Committee (AGDC), through the US Geological Survey (USGS), is requesting product, cost, and delivery information for statewide ortho-imagery coverage, statewide digital elevation models; and higher resolution ortho-imagery and elevation models for selected areas of interest.

II. Responses:

A. Respondents should submit the RFI information specified in Paragraph IV, Proposed Minimum Specifications, and each subparagraph entitled "deliverables" for Statewide Ortho-imagery project; Statewide DEM; and Special Interest area ortho-imagery and DEM products. Respondents may also present several alternative solutions provided they meet or exceed the minimum specifications and satisfy the broad goals of consistent statewide coverage and local higher resolution coverage for the defined areas of interest. Responses should be limited to 20 pages exclusive of commercial printed brochures.

B. Estimates for ortho-imagery and elevation modeling must be kept separate. Leveraging of existing imagery to lower total project cost is permitted. The USGS is also soliciting information to determine the availability of capable contractors that can provide this data.

III. BACKGROUND

The AGDC believes reliable, current, statewide base geographic information is essential for continued economic development, livability, and public safety. Orthoimagery and elevation data are considered the foundation for the framework of base geographic data. At this time, Alaska does not have digital orthoimagery or accurate elevation data. U.S. Geological Survey (USGS) maps of Alaska are over 40 years old, do not meet national Map Accuracy Standards, and there is no existing or planned program to replace them. The most recent statewide high resolution imagery available is 25 years old and does not reflect the current Alaska landscape, especially in light of recent earthquakes, volcanic eruptions and coastal shoreline erosion. This imagery was acquired through the Alaska

High Altitude Aerial Photography Program and is not in digital form, a prerequisite for modern technology. New orthoimagery and elevation data would provide common data foundation layers that would show current conditions and trends over the Alaska landscape and allow other types of geographic information to be extracted and registered. These data layers will allow Alaska agencies, Native corporations, and private organizations to better utilize GIS technology to aid in responsible decision making.

Because of the vast amount of undeveloped land area in Alaska, two sets of proposed minimum specifications are provided – one for Statewide coverage and a second for Special Interest Areas. The Government anticipates that any data acquisition program developed will provide for statewide coverage of the products within five years of the start of the acquisition.

IV. PROPOSED MINIMUM SPECIFICATIONS:

## A. 1 Statewide Ortho-imagery Specifications

- Statewide coverage
- Quad boundary (1:250,000)
- 6 meter resolution or better, allowing for panchromatic sharpening at 2:1
- Color infrared, true color, or multi-spectral (including IR)
- Meets National Map Accuracy Standards for 1:25000 scale
- 7-bit data or better
- Less than 5% cloud and shadow cover per area within 15-minute quad boundary preferred. It will be acceptable to replace clouds and shadows with images taken within the previous season and which meet specifications. Will also consider 10% and 20% cloud and shadow cover.
- Leaf-on conditions
- Minimum sun angle 30 degrees
- View angle 15 degrees
- Archive imagery within 2 years allowed
- Public domain licensing preferred, however, will consider noncommercial unrestricted licensing
- North American Datum 1983
- Projection in Alaska Albers

### A.2 Ortho-imagery Deliverables:

- Digital ortho-imagery
- Seamless quad (1:250,000) format
- Raw data
- Ephemeris data
- FGDC compliant metadata

**A.3 RFI Deliverables for Statewide Ortho-imagery Project**

- Description of final product
- Estimated Annual Cost to Support Statewide Ortho Project; total project cost; cost per unit area for incremental funding
- Estimated Timeframe for delivery of raw data
- Estimated Timeframe for delivery of final products
- Optional: Data dissemination and management model within Open GIS Framework

## B.1 Statewide Digital Elevation Model (DEM) Specifications

- 30 meter posting
- 30 meter circular accuracy
- 10 meter vertical accuracy
- Horizontal datum of NAD83
- Vertical datum of NAVD88

**B.2. Statewide DEM Deliverables:**

- Digital surface models (DTM/DSM)
- Raw data
- FGDC compliant metadata

**B.3 RFI Deliverables for Statewide DEM Project**

- Description of final product
- Estimated Annual Cost to Support Statewide DEM Project; total project cost; cost per unit area for incremental funding
- Estimated Timeframe for delivery of raw data
- Estimated Timeframe for delivery of final products

## C.1 Ortho-imagery Specifications for Special Interest Areas:

**Villages and Urban Areas**
**Pipeline Corridors**
**Transportation Corridors**

- Acquisition area of 5 miles radius surrounding each village point (see map)
- Acquisition area of city/urban boundary for large cities (see map)
- 1 meter resolution or better, allowing for panchromatic sharpening at 4:1
- Color infrared, true color, or multi-spectral (including IR)
- Meets National Map Accuracy Standards for 1:12000
- 8-bit data
- Less than 5% cloud and shadow cover. Okay to replace clouds and shadows with images taken within the previous season and which meet specifications
- Leaf-on conditions

- Minimum sun angle 30 degrees
- View angle 15 degrees or better
- Archive imagery within 2 years allowed
- Public domain licensing preferred, however, will consider noncommercial unrestricted licensing
- North American Datum 1983
- Projection in Alaska Albers
- No duplication of existing high-resolution imagery for special areas if specifications are identical

**C.2. Ortho-imagery Deliverables**

- Digital ortho-imagery
- Raw data
- Ephemeris data
- FGDC compliant metadata

**C.3 RFI Deliverables for ortho-imagery**

- Description of final product
- Estimated Annual Cost to Support detailed Ortho Project; total project cost
- Estimated Timeframe for delivery of final products

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## D.1 DEM Specifications for Special Interest Areas

- 5 meter posting or better
- 5 meter circular accuracy or better
- 1 meter vertical accuracy or better
- Bare earth surface
- Horizontal datum of NAD83
- Vertical datum of NAVD88

**D.2 DEM Deliverables**

- Digital terrain models (DTM/DSM)
- FGDC compliant metadata

**D.3 RFI Deliverables for DEM**

- Description of final product
- Estimated Annual Cost to Support detailed DEM Project; total project cost; cost per unit area for incremental funding
- Estimated Timeframe for delivery of final products

V. GENERAL INFORMATION:

Responses may be sent via e-mail and/or regular mail. Email responses should be sent to Lynette_Nakazawa@ak.blm.gov, tsaultz@usgs.gov and thenning@usgs.gov .

Posting Date: April 15, 2005
Response Date: May 16, 2005

Contracting Office Address: If you are mailing your response send the original to:

Teresa Henninger, Contracting Officer
United States Geological Survey
P.O. Box 25046, MS 204B
Denver Federal Center, Denver, CO 80225

Also send two copies to :

Lynette Nakazawa
Bureau of Land Management, AK971
222 West 7th Avenue, #13
Anchorage, AK 99513
907.271.3274

The following web site is available that contains links to downloadable files and Frequently Asked Questions (FAQ) that the government believes would be beneficial to interested vendors:

http://geodatacontracts.er.usgs.gov/index.html

E-mail is the preferred method for directing all questions and responses. Vendors seeking further information about this RFI or seeking clarification to any part are invited to submit their questions in writing via email to:

**lynette_nakazawa@blm.gov**
**with cc to: tsaultz@usgs.gov and thenninger@usgs.gov**

All information exchanged during the open period for the RFI will be used to update FAQ available on the web site listed above. Individual vendors will not be notified of the results of this RFI.